

## Potential economic corridors between Vietnam and Lao PDR: Roles played by Vietnam

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### CHAPTER 3

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#### **CHAPTER 3**

# POTENTIAL ECONOMIC CORRIDORS BETWEEN VIETNAM AND LAO PDR: ROLES PLAYED BY VIETNAM

Nguyen Binh Giang

#### INTRODUCTION

The Third Thai-Lao Friendship Bridge over the Mekong River officially opened on November 11, 2011, facilitating cross-border trade along Asian Highway (AH) 15 (Route No. 8) and AH 131 (Route No. 12) between northeast Thailand, central Lao PDR and North Central Vietnam. Since the establishment of the East-West Economic Corridor (EWEC) which is based on AH 16 (Route No. 9), the cross-border trade among countries in the Greater Mekong Sub-region has been much facilitated. The success of EWEC encourages local governments in the region to establish other economic corridors. Currently, it seems that there are ambitions to establish parallel corridors with EWEC. The basic criteria for these corridors is the connectivity of the Thailand-Lao PDR or Lao PDR-Vietnam border gates, major cities in northeast Thailand, south and central Lao PDR, and North Central and Middle Central Vietnam, and ports in Vietnam by utilizing some existing Asian Highways (AHs) or national highways. In the north of EWEC, there are some potential corridors, including the following:

- (1) The corridor across Nam Kan / Nam Can border.
- (2) The corridor across Nam Phao / Cau Treo border.
- (3) The corridor across Na Phao / Cha Lo border.

In the south of EWEC, there is:

(4) The corridor across Phoukeua / Bo Y border.

Additionally, there are the following under-planning corridors:

- (5) The corridor across Namon / Thanh Thuy border.
- (6) The corridor across Daktaoknoy / Nam Giang border.

This chapter will examine the current state of those corridors, including Vietnam's national highways and the provinces and ports they connect. In the first section of this chapter, the author reviews the development history of national highways and provinces. The second section explains the geographical information and road conditions of each corridor. The third provinces focus on the provinces along the corridors including the major products of each province. The fourth section examines the ports and SEZs related the corridors. Concluding remarks summarize the results and presents policy implications for the development of the central Vietnam and Lao PDR.

#### 1. DEVELOPMENT HISTORY

#### 1.1. Routes

The French invested much on the transport network in central Vietnam, including linkage to the Lao PDR for the sake of connecting Laos to the ocean. In 1895, the construction of Route No. 9 from Savannakhet to Dong Ha was started. In 1903, the construction of Route No. 8 from Borikhamsay (Laos) to Hong Linh began. In 1930, both Route No. 9 and Route No. 12 (from Thakhek to Ba Don) were opened. In 1937, Route No. 7 from Luang Prabang to Dien Chau was put into use.

In 1925, the French proposed a rail route project from Thakhek to Tan Ap (Quang Tri Province). At first, the French wanted to construct a tunnel for this rail route under Mu Gia Pass (Quang Binh Province) near the Laos-Vietnam border. But then they changed to construction of an aerial cable for cost-reducing. On December 10, 1933, a 17.5-km rail route from Tan Ap (Tuyen Hoa, Quang Binh Province) to Xom Cuc (Minh Hoa, Quang Binh Province) was opened. At the same time, a 40-km aerial cable from Xom Cuc to Na Phao was put into use.

In August 1999, the ASEAN Highway Network Project was officially proposed. Of

16 main routes on the network, there are 4 routes running across central Vietnam (the above-mentioned second, third, and fifth alternative routes and the EWEC main route) to connect several major cities in northeast Thailand, south Lao PDR and central Vietnam with seaports. These routes have been considerably upgraded since then, including the widening of some segments and new construction of bypasses and bridges. Route No. 12A was much shortened by construction of new shortcuts in the second half of the 2000s.

#### **1.2. Ports**

Danang Port was constructed by the French at the estuary of the Han River in 1901 as one of the first modern ports in Vietnam (two others were Hai Phong and Sai Gon). During the Vietnam War, the 4-berth Tien Sa Port was constructed by the Americans.

Ben Thuy Port on the estuary of the Lam River (better known as the Ca River abroad) in Vinh with two berths was also constructed by the French right after World War I. This port can accept 500 to 1,000 tonnage vessels. Deposition at the mouth of the Lam River, however, made it unsuitable for navigation with the river port of Ben Thuy. The construction of Cua Lo Port (in the estuary of the Cam River and south of Rong Cape (*mui* Rong) in Nghe An Province), thus, was started in the beginning of the 1980s. In 1985, the first two berths (7.5-m depth and 2-m tide) were put into use. The navigation channel for Cua Lo Port, however, is just 5.5 m in depth and is also affected by the deposition. For that reason, the large vessels used to berth in Ngu Island (hon Ngu) to wait for cargo transshipment with Cua Lo Port.

In 1991, a socio-economic stabilization and development strategy for 1991-2000 was approved by the 7th National Congress of the Communist Party of Vietnam. This strategy required the expanding of existing ports and harbors as well as developing new deep-sea ports to facilitate transportation of goods. The Cua Lo Port expansion project and the Vung Ang Port (in the south of Ha Tinh Province) and Dung Quat Port (north of Quang Ngai Province) construction projects were initiated in the middle 1990s (Table 1). Vung Ang was the first deep-sea port development project for the sake of exploiting economic integration in the Greater Mekong Sub-region. The Orientation Plan of Vung Ang Port and Industrial Park Development, which was approved in 1997,

Table 1: Main Ports in North Central and Middle Central Vietnam

Port	Location	Depth	Largest Vessel	Total Length of berths <sup>1)</sup>
		(m)	Harbor Ability	(m)
			(thousand DWT)	
Cua Lo	Cua Lo, Nghe An	7.5	5 - 10	656 (4)
Vung Ang	Ky Anh, Ha Tinh	10.8 - 13	10 - 30	455.5 (2)
Hon La	Quang Trach, Quang Binh	9.2	10	100 (1)
Chan May	Phu Luc, Thua Thien -	12.5	30	300 (1)
Tien Sa	Son Tra, Danang	11 - 12	10 - 30	969 (5)
Dung Quat	Binh Son, Quang Ngai	9		210 (1)
Quy Nhon <sup>2)</sup>	Quy Nhon, Binh Dinh	8.5 - 12	7 - 30	835 (6)

Notes: 1) Special-purpose berths / terminal excluded. Figures in ( ) indicate the number of berths.

Source: IWEP Join Research Team.

mentioned the development of a road from Vung Ang to Thakhek (Lao PDR). The first berth of Vung Ang Port in the east of Ron Cape (*mui* Ron) to be dedicated for Lao PDR's cargos was constructed during 1999 and 2001. The second berth, dedicated for Vietnamese cargos, was started in 2006 and completed in 2010. With depths of 11.6 and 13 m, these two berths of this first seaport in North Central Vietnam can accommodate vessels to 30,000 DWT. The Vung Ang Port managing company recently changed its name to Viet-Lao Vung Ang Port Join-Stock Company, in which Lao companies hold 20 percent of the stock. Under the plan, there will be 4 more berths in Vung Ang Port.

In 1999, Vietnam's prime minister approved the General Master Plan of Vietnam's Sea Port System Development through 2010, in which Cua Lo, Tien Sa and Dung Quat were three of 10 ports that should be prioritized. Construction of the third berth of Cua Lo Port was finished in 2001, and of the 4th berth in 2007. The first berth of Dung Quat Port (in the east of Tui Cape (*mui* Tui) in Dung Quat Bay) which is dedicated for the Dung Quat Oil Refinery was completed in 2002. The construction of a container terminal (including a new 225-m-long berth), the 471.9-m-long breakwater and the access road of Tien Sa Port was funded by a Japanese ODA loan in the first half of the

<sup>2)</sup> In fact, Quy Nhon Port is in South Central Vietnam.

<sup>&</sup>lt;sup>1</sup> Beside this two-berth terminal for cargos, Vung Ang Port also has a terminal featuring several berths dedicated to coal supply for Vung Ang Thermal Power Cluster.

2000s.

In 2009, the prime minister approved the new Master Plan of Vietnam's Sea Port System Development through 2020, with vision to 2030. Under this plan, projects of new seaports in Nghe An, Ha Tinh, Danang and Quang Ngai will be launched. The construction of Cua Lo Deepwater Port was started in December 2010. The new port, in between Rong Cape and Ga Cape (mui Ga), is really a seaport. It is expected to replace the existing Cua Lo river port as the main terminal.

At the same time, development of the Vung Ang Port and Son Duong Port projects (very close to Vung Ang Port) <sup>2</sup> is also under way by the Formosa Plastics Group of Taiwan.

#### 1.3. Airports

During the 1930s, the French constructed the first airports in central Vietnam, including the current Vinh, Phu Bai (or Hue) and Danang airports. Three decades later, Chu Lai Airport was built by the Americans for use by the US Air Force. The airport was designed to accept B-52 strategic bombers. At the same time, a Dong Hoi unpaved airway was constructed by the People's Army of Vietnam.

Currently, Danang Airport is the most active one in central Vietnam, and next is Phu Bai (Hue Airport). They are designated as international airports (Table 2). Driven by increasing demand, some military airports in the region were put into civil operation as domestic airports, including Vinh Airport in Vinh, Nghe An (since January 1995), Chu Lai Airport in Tam Ky, Quang Nam (since 2004), and Dong Hoi Airport in Dong Hoi, Quang Binh (since 2008). Airports in central Vietnam were continuously upgraded and expanded, including the installation of new technology facilities and new construction of passenger terminals.

Vinh Airport was put into civil use in 2006. There are 6 or 7 domestic flights every day by Vietnam Airlines, Jetstar Pacific and Air Mekong which connect Vinh to Hanoi, Ho Chi Minh City and Buon Ma Thuot.

Dong Hoi Airport (domestic) was opened for civil operation in May 2008. There are two flights by Vietnam Airlines every day at this airport, one for Hanoi by ATR 72

<sup>&</sup>lt;sup>2</sup> Vung Ang Port is located in the east of Ron Cape while Son Duong Port is in the west of Ron Cape.

Table 2: Airports in North Central and Middle Central Vietnam

Airport	Location	Type by designation	Destination
Vinh	Vinh City, Nghe An	Domestic	Hanoi, Ho Chi Minh
			City, Ban Me Thuot
Dong Hoi	Dong Hoi City, Quang Binh	Domestic	Hanoi, Ho Chi Minh
			City
Phu Bai (Hue)	Huong Thuy Township, Thua	International 1)	Hanoi, Ho Chi Minh
	Thien - Hue		City
Danang	Hai Chau District, Danang	International	Hanoi, Ho Chi Minh
			City, Buon Ma Thuot,
			Da Lat, Hai Phong, Nha
			Trang, Pleiku, Tokyo,
			Beijing, Chengdu,
			Kunming, Shanghai,
			Guangzhou, Siem Reap,
			Singapore, Taipei
Chu Lai	Tam Ky City, Quang Nam	International 1)	Hanoi, Ho Chi Minh
(Tam Ky)			City

*Note*: 1) In fact, there are no international flights in these airports at present.

Source: IWEP Join Research Team.

or Focker 70 and one for Ho Chi Minh City by Airbus 320. World Natural Heritage of Phong Nha Ke Bang National Park, listed by UNESCO in 2003, creates increasing demand for Dong Hoi Airport.

#### 1.4. Special Economic Zones

Since the end of the 1990s, several coastal special economic zones (SEZs) have been established in central Vietnam as dynamos for economic growth. The Chu Lai Open Economic Zone project was started in 1999 and the zone was established in June 2003 in the south of Quang Nam Province (Table 3). Very close to Chu Lai is Dung Quat Economic Zone in the north of Quang Ngai. The project was launched in 1996 but the zone itself was not established until March 2005. Chan May-Lang Co Economic Zone in the south of Thua Thien-Hue Province was established in January 2006. Dong Nam Nghe An Economic Zone was established in the southeast of Nghe An Province in June 2007. Hon La Economic Zone was established in the north of Quang Binh Province in June 2008.

Table 3: SEZs in North Central and Middle Central Vietnam

SEZ	Location	Area (ha)	Criteria
Chu Lai	Nui Thanh District,	27,040	Chu Lai Airport, Ky Ha Sea
	Quang Nam Province		Port
Dung Quat	Binh Son District, Quang	10,300	Dung Quat Port, Chu Lai
	Ngai Province		Airport
Chan May-Lang Co	Phu Loc District, Thua	27,108	Chan May Port, Phu Bai
	Thien-Hue Province		(Hue) Airport
Vung Ang	Ky Anh District, Ha Tinh	22,781	Vung Ang-Son Duong Port
	Province		
Dong Nam Nghe An	Southeast of Nghe An	18,826	Cua Lo Port, Vinh Airport
	Province		
Hon La	Quang Trach District, Quang	10,000	Hon La Port
	Binh Province		
Lao Bao	Huong Hoa District, Quang	15,804	Lao Bao International Border
	Tri Province		Gate
Cau Treo	Huong Son District, Ha Tinh	56,684	Cau Treo International Border
	Province		Gate
Bo Y	Ngoc Hoi District, Kon Tum	70,438	Bo Y International Border
	Province		Gate

Source: IWEP Join Research Team.

Besides coastal SEZs, there are several border SEZs in the region, including Lao Bao Special Economic and Trade Zone (unofficially since 1998 and officially since January 2005 in Quang Tri Province), Cau Treo International Border Economic Zone (experimentally in 1998 and officially in October 2007 in Ha Tinh Province), and Bo Y International Border Economic Zone (experimentally in 1999 and officially in October 2005 in Kon Tum Province). Other border economic zones include Cha Lo in Quang Binh Province, Nam Giang in Quang Nam Province, and A Dot in Thua Thien-Hue Province. These economic zones are considered as special economic zones, but they are in fact not special enough from the point of views of institutions. By the number, there are too many SEZs in Vietnam, but no one has special institutions to attract investors.

#### 2. ECONOMIC CORRIDORS

#### 2.1. Across Nam Kan / Nam Can Border

The corridor across Nam Kan International Checkpoint in Nong Het, Xiengkhuang, and

Nam Can International Border Gate in Ky Son, Nghe An, connects Xiengkhuang Province with the ocean via Route No. 7, which was constructed by the French during the colonial period. This corridor plays a crucial role for the foreign trade of several provinces in north Lao PDR. Due to Laos' steep Phou Bia mountain range, with elevations sometimes exceeding 1,500 m, Route No. 13 north from Vientiane to Luang Prabang is very tough for drivers. Therefore, the import and export cargos of Luang Prabang and Xiengkhuang provinces are not conveyed along north-south Route No. 13 but along west-east Route No. 7. The corridor is also an important connection between hinterland northwest Nghe An and the active economy of southeast Nghe An in Vietnam.



The Ro Bridge on Route No. 46A crosses the Lam River.

Source: Taken by the author on July 26, 2011.



Route No. 7A in Anh Son Town has two lanes each way with a median strip.

Source: Taken by the author on July 26, 2011.



A Lao van on Route No. 7A in Tuong Duong. The road here is about 5 m wide.

Source: Taken by the author on July 26, 2011.



Route No. 7A in Ky Son suffered erosion by the flash flood at Nam Mo River in July 2011. *Source*: Taken by the author on July 26, 2011.

The section of Route No. 7 in Vietnam is called Route No. 7A. It runs 225 km from east to west Nghe An. The east terminus of Route No. 7A is the Y-junction of Route No. 7A and Route No. 1A in Dien Chau Town, Dien Chau District. The western end is at the Nam Can border gate (Vietnam-Lao PDR border at Nam Can Commune, Ky Son District). This highway runs across 7 districts. The major towns along it are Muong Xen, Hoa Binh, Anh Son, Con Cuong, Do Luong and Dien Chau. Under a master plan, Con Cuong will become a township in the near future. Route No. 7A meets Route No. 1A in Dien Chau Town, Route No. 15 and Route No. 46B both in Do Luong Town, and Ho Chi Minh Highway in Khai Son (Anh Son). It also meets provincial roads No. 534 and No. 538.

From the Nam Kan / Nam Can border to Cua Lo Port, drivers can choose between two alternative routes which are nearly equal in length. The first one includes the full Route No. 7A (225 km from Nam Can to Dien Chau Town), Route No. 1A (28 km from Dien Chau Town to Quan Hanh Town), and Route No. 46A plus provincial road 534 (10 km from Quan Hanh to Cua Lo Port). The segment of Route No. 7A across Yen Thanh and Dien Chau districts as well as provincial road 534 are, however, very poor.

The second route, and the best by road condition, consists of the following segments, with the distance by our field survey:

- A part of Route No. 7A from the border to the junction at Khai Son: 171 km,
- Turn left on Ho Chi Minh Highway until the junction at Thanh Thuy: 38 km,
- Turn left to Route No. 46A, cross Ro Bridge, turn right to Route No. 46A (turning left would be to Route No. 46B): 11 km,
- Ro Bridge to Vinh: 47 km,
- Vinh to Cua Lo Port: 17 km.

This route is 275 km in length. In future, it will share the last 75 km-long section with the corridor across the Nam Om / Thanh Thuy border. This route is basically two lanes (one lane each way) of asphalt concrete, with most parts ranging from 5 to 7 m in width. The parts through towns (except Muong Xen) and townships are wider as a 15-m dual two-lane road with a median strip. The part that crosses the Lam River on the Ro

Bridge (opened in May 2004) is concrete and 406.5 m in length and 9 m in width (see the picture).

The Route No. 46A segment basically crosses a plains area, so it is rather flat and smooth. The Ho Chi Minh Highway segment and Route No. 7A segment to Muong Xen Town are also relatively flat though curvy. In Tuong Duong and Ky Son districts (except in towns), the road is narrower. From Muong Xen to the Nam Can border, the road is steep and curvy.

The Route No. 7A segment runs basically along the right bank of the Lam River and its tributary — the Nam Mo River. For that reason, some parts are often challenged by flash floods. The flash flood at the end of June 2011 washed off some sections in Ky Son and Tuong Duong (see the picture).

Cua Lo Port can only harbor vessels under 10,000 DWT. For larger vessels, the corridor should stretch to Vung Ang Port. In this case, there are two alternative routes. The first one is to go to Vinh and then turn on Route No. 1A southward to Vung Ang. The second one consists of the following segments:

- Route No. 7A from the border to the intersection of Khai Son with Ho Chi Minh Highway,
- Ho Chi Minh Highway from Khai Son southward to the junction with Route No. 8A near Pho Chau Town (Ha Tinh),
- Route No. 8A from the intersection of Pho Chau eastward to the Y-junction with Route No. 1A in Hong Linh Township,
- Route No. 1A from the junction with Hong Linh southward to Vung Ang Port.

#### 2.2. Across Nam Phao / Cau Treo Border and Na Phao / Cha Lo Border

The Third Thai-Lao Friendship Bridge over the Mekong River shortens the road to the ocean, Hanoi and south China. It offers two routes, complete with the main route of EWEC (i.e. Route No. 9 or AH16).<sup>3</sup>

The first corridor is based on the French period's Route No. 8, which crosses Nam Phao International Checkpoint in Khamkeuth of Borikhamsay and Cau Treo

<sup>&</sup>lt;sup>3</sup> See Isono (2011).



Route No. 8A at the foot of the Keo Nua Pass in Son Kim 1Commune, 20 km from the border. The road surface here is a stone chip-tar asphalt mix. *Source*: Taken by the author on December 21, 2010.



Route No. 8A near Duc Tho Town. This section is a dual two-lane road with median strip.

Source: Taken by the author on December 21, 2010.

International Border Gate in Huong Son of Ha Tinh. The part in Vietnam utilizes Route No. 8A, Route No. 1A and Cua Lo Port (for vessels under 10,000 DWT) or Vung Ang Port (for larger vessels). This corridor is named as AH15 in the Asian Highway network. Route No. 8A, at 94 km, runs from east to west in the north of Ha Tinh Province, and crosses Huong Son and Duc Tho districts and Hong Linh Township. Urban areas along Route No. 8A include the towns of Tay Son, Pho Chau and Duc Tho, and Hong Linh Township. In Pho Chau (Huong Son District), Route No. 8A overlaps with Ho Chi Minh Highway for several km. At Truong Son (Duc Tho), Route No. 8A meets Route No. 15. At Hong Linh, Route No. 8A meets Route No. 1A.

Route No. 8A includes a 20-km segment near the border in Keo Nua Pass (altitude 760 m). This segment has a stone chip-tar asphalt mix surface, but is just 5 m wide, curvy and steep. The remainder crosses a relatively flat area and is about 7 m wide as a two-lane highway. Some sections have an asphalt concrete surface. The part through Tay Son, Pho Chau and Hong Linh is wider at 15 m, and is a dual two-lane highway with median strip. At the time we did the field trip there, Route No. 8A was in the last stage of widening works under the plan of period 2006-2010. Some sections are being widened (see the picture), while other sections are being made more smooth.

Route No. 8A has, however, many sections which are closed to the Ngan Pho and La rivers. Because of the short distance from the Annamite range (day Truong Son) to the ocean, flash floods often occur during the June-November flood season. The

flooding in August 2005 and October 2010 shrank some long sections, and even eroded other sections.

At the intersection of Route No. 8A and Route No. 1A, turn northward for about 39 km to reach Cua Lo Port, or turn southward for about 100 km (through Ha Tinh City) to reach Vung Ang Port. As Route No. 1A is the most crucial transport corridor in Vietnam, it is rather good. The Ben Thuy Bridge, which is on Route No. 1A crossing the Lam River to connect Nghe An and Ha Tinh, was completed in 1990. The Second Ben Thuy Bridge is now under construction. The section of Route No. 1A which is along the Lam River is, however, low and close to the river. Hence, it is often flooded. In October 2010, rain and a flash flood shrank a 15-km-long section at the south of the Ben Thuy Bridge. The big flash flood swept away a bus and took 20 lives. Table 4 shows the length of the corridor across the Nam Phao / Cau Treo border, which our research team observed by field trips.

The second corridor (AH131), based on Route No. 12, crosses Na Phao International Chekpoint in Boulapha District (Khammuane Province, Lao PDR) and Cha Lo International Border Gate in Minh Hoa District (Quang Binh, Vietnam). This corridor utilizes Route No. 12A in Vietnam. Route No. 12 was originally built by the French during the colonial period. Its west end is in the outskirts of Thakhek Town (Khammuane), where it meets Route No. 13 south (Lao PDR). Its east end is the T-junction with Route No. 1A in the outskirts of Ba Don Town at the north of Quang Binh (Vietnam). The original Route No. 12A is totally in Quang Binh. It runs along the

Table 4: Length of Corridor across Nam Phao / Cau Treo Border

Start – Finish	Length (km)
Nam Phao / Cau Treo border - Route No. 1A (Vietnam)	94.2
Nam Phao / Cau Treo border - Cua Lo Port	133.2
Nam Phao / Cau Treo border - Vung Ang Port	194.2
Route No. 13 South (Lao PDR) - Nam Phao / Cau Treo border	130.6
Route No. 13 South (Lao PDR) - Route No. 1A (Vietnam)	224.8
Third Thai-Lao Friendship Mekong Bridge - Cua Lo Port	350.8
Third Thai-Lao Friendship Mekong Bridge - Vung Ang Port	304.9
Vientiane - Cua Lo Port	498.2
Vientiane - Vung Ang Port	626.3

Source: Field trip result.

Gianh River and the north-south Railway through three districts -- Quang Trach, Tuyen Hoa and Minh Hoa -- with a length of nearly 200 km.

In the second half of the 2000s, to facilitate commercial traffic between the border and Vung Ang Port, two new shortcuts were constructed (Figure 1). The first one runs from the Y-junction with Route No. 1A in Ky Anh Town (south of Ha Tinh) to Dong Le Town (Tuyen Hoa District). The second shortcut goes from Hong Hoa Commune (Minh Hoa District) to the Y-junction with Ho Chi Minh Highway at Hoa Tien Commune (Minh Hoa). From the intersection with Ky Anh, drivers can turn southward for 8 km to reach the T-junction between Route No. 1A and the road to Vung Ang Port. Vung Ang Port is about 11 km from this junction (Table 5). Shortcuts reduce the distance from Cha Lo to Route No. 1A. And the distance from Vung Ang Port to Ky Anh Town is shorter than to Ba Don Town (Quang Trach District).

The shortcuts can reduce the way from the Cha Lo border to Vung Ang Port by 37.5 km or 56.2 km. Route No. 12A in general is a two-lane highway with asphalt concrete or a stone chip-tar asphalt mix surface. The segment at the Mu Gia Pass (a mountain

Figure 1: Third Thai-Lao Friendship Bridge, Route No. 8 and Route No. 12 in Lao

**PDR** Ben Thuy Bridge **Borikhamsay Province** 8

Cau Treo Ha Tinh Son Duong Bungkai éng Kham Province Province Khammuane 12A Third Mekong Friendship a Don Sakon Nakhon Nakhon: Phanom Quang Binh Province: Province Dong Ho Province Sakon

Source: Drawn by the Editor.

Table 5: Distance from Na Phao / Cha Lo border to Vung Ang Port

Course	Length (km)
Na Phao / Cha Lo border - junction Khe Ve (between Route No. 12A and Ho Chi Minh Highway)	53
Junction Khe Ve - Dong Le Town - Route No. 12A shortcut - Ky Anh Town	89
Ky Anh Town - Route No. 1A - juntion Route No. 1A enter Vung Ang Port	8
Junction Route No. 1A enter Vung Ang Port - Vung Ang Port	10
Junction Khe Ve - shortcut in Minh Hoa - Route No. 12A old - junction Route No. 1A near Ba Don	87.5
Junction Khe Ve - Quy Dat Town - Dong Le Town - junction Route No. 1A near Ba Don (not using shortcut in Minh Hoa)	106.2
Junction Route No. 1A near Ba Don - junction Route No. 1A enter Vung Ang Port	47
Na Phao / Cha Lo border - Vung Ang Port using shortcuts in Ky Anh and Minh Hoa	160
Na Phao / Cha Lo border - Vung Ang Port only using shortcut in Minh Hoa	197.5
Na Phao / Cha Lo border - Vung Ang Port not using shotcuts	216.2

Source: Field trips results.

pass from the border to the junction with Ho Chi Minh Highway in Khe Ve) has a length of about 38 km and a width of 6 to 7 m. In Ky Anh Town and Ba Don Town, the road is dual two lanes with a median strip. The shortcut from Ky Anh to Dong Le goes through a tough mountainous area. To reduce curving and steepness, engineers split the mountains. Along the Route No. 12A shortcut, drivers can see many taluses. When heavy rain, typhoons or flash floods come, landslides may occur. During the June-November flood season in North Central Vietnam, the old Route No. 12A sections along the Gianh River may be flooded, as was the case in August 2007, September 2009, October 2010, and September 2011.

Table 6 shows the length of the corridor across the Na Phao / Cha Lo border, which our research team observed by field trips. Although the Third Thai-Lao Friendship Bridge, Route No. 8 and Route No. 12 shorten the road from northeast Thailand to the ocean and south China, container trailer drivers may prefer Route No. 9 for various reasons. Route No. 9 is better in terms of road condition. Customs facilitation and investment promotion at borders along Route No. 9 are also better than along Route No. 12 and Route No. 9. The distance from the Densavanh / Lao Bao border to Tien Sa Port

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<sup>&</sup>lt;sup>4</sup> Isono (2011).



A truck travels on Route No. 12A in the Mu Gia

Source: Taken by the author on December 21, 2010. Source: Taken by author on July 29, 2011.



Route No. 12A (AH131) shortcut in Ky Anh District



Route No. 12A (AH131) is a shortcut in Ky Anh Town.

Source: Taken by the author on July 29, 2011.



Route No. 12A (AH131) as seen in Ba Don Town. Source: Taken by the author on July 29, 2011.

Table 6: Length of Corridor across Na Phao / Cha Lo border

Start - Finish	Length (km)
Na Phao / Cha Lo border - Vung Ang Port using shortcuts in Ky Anh and Minh Hoa	160
Third Thai-Lao Friendship Mekong Bridge - Na Phao / Cha Lo border	159.6
Third Thai-Lao Friendship Mekong Bridge - Vung Ang Port	319.6

Source: Field trips result.

using Route No. 9 is shorter than from the Na Phao / Cha Lo border and from the Nam Phao / Cau Treo border. Among ports in North Central and Middle Central Vietnam, Tien Sa Port is unique as an international gateway class seaport by designation, and is the best in terms of facilities for container handling and ship calls.

#### 2.3. Across Phoukeua / Bo Y Border

The corridor across the Phoukeua / Bo Y border connects Ubon Ratchathani in northeast Thailand, Champasack, Sekong and Attapeu provinces in south Lao PDR, and the North Central Highland of Vietnam to the ocean in Danang. In Vietnam, the corridor uses Route No. 40 and Route No. 14B. Route No. 40 is the main road from the border to Ho Chi Minh Highway (or Route No. 14) in Plei Kan Town (Ngoc Hoi District, Kon Tum Province). From Plei Kan, there are three routes for going to the ocean. The first is the Danang-Central Highland corridor, as it is called in the Master Plan of Transportation in the central Pivotal Economic Region to 2020. The second is the Quang Ngai-central Highland corridor. And the third is the Quy Nhon-central Highland corridor. In this chapter, we will only examine the Danang-Central Highland corridor because of four reasons: (i) the future of Danang Port; (ii) the shorter distance from Plei Kan to port; (iii) the future of the corridor across the Daktaoknoy / Nam Giang border; and (iv) the role of Danang as a metropolitan area. The Quy Nhon-Central Highland corridor consists of three segments, with a total length of 237 km.

The first is Route No. 40 (AH 132) from the Phoukeua / Bo Y border to Plei Kan Town (Ngoc Hoi District, Kon Tum Province). This relatively flat asphalt road has a length of 20 km and a width of 7 to 15 m. Route No. 40 meets Ho Chi Minh Highway (Route No. 14) in Plei Kan.

The second is Ho Chi Minh Highway (AH17) from Plei Kan to the junction at the outskirts of Thanh My Town (Nam Giang District, Quang Nam Province), where it meets Route No. 14B. This segment is 143 km in length and basically two lanes, except for the dual two-lane parts that cross Plei Kan, Dak Glei (Dak Glei District, Kon Tum Province), Kham Duc (Phuoc Son District, Quang Nam Province) and Thanh My towns. It passes through a mountainous area with many curves and steep sectors, especially in Dak Glei and Phuoc Son districts. High (930 m) and rugged, the Lo Xo Pass through the Ngoc Linh mountain mass between Dak Glei and Phuoc Son is about 20 km in length. This mountain pass, as well as some sectors close to the Po Ko River in Dak Glei, is

<sup>&</sup>lt;sup>5</sup> Decision 07/2011/QD-TTg issued on January 25, 2011 by Vietnam's prime minister.



Route No. 40 as seen in Ngoc Hoi, Kon Tum. Source: Taken by the author on 20 September 2011. flooding from



This erosion along Ho Chi Minh Highway
(Route No. 14) in Dak Glei was caused by
the Poko River.

*Source*: Taken by the author on 18 September 2011.



Ho Chi Minh Highway as seen at the Lo Xo Pass, Dak Glei, Kon Tum.

Source: Taken by the author on 18 September 2011.



Route No. 14B as seen at a Danang surburb. *Source*: Taken by the author on 18 September 2011.

often threatened by landslides and erosion during the rainy season (from May to October).

The last segment is Route No. 14B (AH17), which runs through the Nam Giang, Dai Loc (Quang Nam Province) and Hoa Vang (Danang) districts, and the center of Danang to Tien Sa Port. This segment is about 74 km in length. Although the section through the Nam Giang and Dai Loc districts crosses a hilly landscape, it is smooth. The Ha Nha Bridge (23 km from Thanh My and 50 km from Tien Sa Port) crosses the Vu Gia River and was completed in 2006. Before the existence of the Ha Nha Bridge,

drivers had to depend on the Hoi Khanh Floating Bridge to across the Vu Gia River, a big obstacle for commercial trucks. The last 23-km-long sector passes through Danang and is smooth and flat. The road is 33 m wide, consisting of two lanes each way.

An alternative route for Route No. 14B is Route No. 14E, which connects Ho Chi Minh Highway in the west to Route No. 1A in Ha Lam Town (Thang Binh District) in the east. The Y-junction between Route No. 14E and Ho Chi Minh Highway is about four km from Kham Duc Town (Phuoc Son District). The length of this alternative route is about 83 km. The distance from Ha Lam to Tien Sa Port is about 52 km, and it is about 70 km from Ha Lam to Dung Quat Port.

It should be noted that on the way by Ho Chi Minh Highway from Kon Tum to Danang, there is a Y-juntion between this route and Route No. 14D (connecting the Daktaoknoy / Nam Giang border to Ho Chi Minh Highway). The distance between this junction and the Thanh My junction is about 12 km. Route No. 14D is ready for a new transport corridor. This new one will complement the Danang-Central Highland corridor.

We mentioned above that a corridor connects northeast Thailand, south Lao PDR and the North Central Highland to Danang. By interviewing experts from Quy Nhon Port and the provincial governments of Binh Dinh and Kon Tum, we found that a relatively large amount of cargos that go through the Phoukeua / Bo Y border are also conveyed to Quy Nhon Port in Binh Dinh Province. Regarding the distance from Bo Y, Quy Nhon Port is nearly 40 km farther than Tien Sa Port. But as for the distance from Thi Vai-Cai Mep Port (the largest and most modern port in Vietnam), Quy Nhon Port is much nearer than Tien Sa Port. Besides, Quy Nhon Port has achieved better performance in terms of throughput in comparison to Tien Sa Port. For cargos that need conveyance further from ports in central Vietnam to Thi Vai-Cai Mep Port, Quy Nhon Port is obviously a better choice. It is worth noting that Quy Nhon Port also serves for the corridor between northwest Cambodia, Gia Lai Province and South Central Vietnam using Route No. 19 in Gia Lai and Binh Dinh.

<sup>&</sup>lt;sup>6</sup> Cong Phuong - Mai Khanh (16/6/2011). " Quy Nhon Port: Timely heaven, prosperous earth and harmonious people (Cang Quy Nhon: thien thoi, dia loi, nhan hoa)." *Kinh te Hop tac Vietnam*, retrieved November 25, 2011.

#### 3. PROVINCES

Vietnam's provinces along the above-mentioned corridors, except Danang, are less developed. Major causes include less-developed industry (Table 7), poor infrastructure, and poor conditions for agriculture production. There is no large industrial base in the region, except for the Dung Quat Oil Refinery in Quang Ngai which opened recently.

The Vietnam government is devoting attention to the poverty reduction program as part of the country's sustainable development strategy. And, road transport development is an important measure for this program, as we will show below. Because the potential economic corridors between Vietnam and Lao PDR are, first of all, the corridors to help integrate Vietnam's hinterland regions to coastal regions, and also are provincial economies to the national economy, it is reasonable to expect that the Vietnam government will develop these corridors.

**Table 7: Industrial Production Value in 2009 by Province** 

Province	Industrial production value in current price (bill. VND, as of 2009)	Industrial production value per capita in current price (mill. VND, as of 2009)
Nghe An	10,057.6	3.5
Ha Tinh	3,840.2	3.1
Quang Binh	4,708.5	5.6
Quang Nam	15,816.4	11.1
Quang Ngai	25,505.3	21.0
Kon Tum	1,276.1	3.0
Country Min	347.0	0.9
Country Max	509,831.5	227.4
Country Median	10,057.6	8.7
Country Mean	35,370.6	25.9

Note: the average exchange rate (as of 2009): 17,130 VND per US\$.

Source: General Statistical Office and calculation by author.

#### 3.1. Nghe An and Route No. 7A

Nghe An is the fourth largest province in Vietnam in terms of population<sup>7</sup> and the biggest province in terms of dimension. Nghe An shares a border with Huaphanh, Xiengkhuang and Borikhamsay provinces of Lao PDR in the west. The province has 82 km of coast in the east with Ben Thuy Port at the mouth of the Lam River and Cua Lo Port in the estuary of the Cam River.<sup>8</sup> Geographically, Nghe An consists of two areas. The hinterland mountainous area includes 10 western districts, which cover 80 percent of the provincial dimension. The coastal plains area includes a city, two townships and 7 districts in the east.

Economically, production distribution in Nghe An is not even. The western districts are less developed than the eastern districts, partly because the mountainous characteristics are not suitable for industrial as well as agricultural production, and partly because of the poor infrastructure. The northern districts are less developed than the southern districts, and the western districts are less developed than the eastern coastal districts. Ky Son, Tuong Duong and Que Phong districts in the north are three among 62 poor districts in Vietnam. Greater Vinh (consisting of Vinh and surrounding districts and townships) in southeast Nghe An is the most developed region, thanks to the spillover effect from Vinh and the more developed infrastructure. Vinh is designated by the government as an economic-cultural center for North Central Vietnam.

The nominal industrial production value per capita in 2009 of Nghe An was only 3.5 million VND (about US\$ 200), while the country average level was 25.9 million VND and the country median level was 8.7 million VND. The combined share of mining, industry and construction in Nghe An's GDP was 36.8 percent in 2010. Nghe An's major manufacturing products are processed foodstuffs, processed forestry products, garment and textile products, and rolled steel. Major mining products include tin smelting products, construction stones and white stone for export. Construction

 $^{7}$  More than 2.9 million inhabitants (estimated in 2010).

<sup>&</sup>lt;sup>8</sup> Do not confuse this with the river of the same name in Hai Phong where Hai Phong Port is situated.

<sup>&</sup>lt;sup>9</sup> In Vietnam, a poor district is a district where the share of poor households is larger than 50 percent of total households. A poor household is a household whose average income is equal to or less than 400,000 dong/person/month (4,800,000 dong/person/year).

<sup>&</sup>lt;sup>10</sup> General Statistical Office and calculation by author.

<sup>&</sup>lt;sup>11</sup> Portal of Nghe An Province.

materials include cement and bricks. Recently, thanks to FDI and private domestic investment, Nghe An industry has grown relatively fast. Some major projects are worth naming. These include the Sai Gon Beer factory in Nam Dan, the Hanoi Beer factory in Nghi Loc, a fresh milk processing factory by TH True MILK in Nghia Dan, a steel mill project by Kobe Steel in Quynh Loi, the sugar producing joint venture (with Tate & Lyle) in Quy Hop, a white stone processing factory by Yabashi in Quy Hop, the stone powder processing factory by Omya, a can making factory by Sabeco in Vinh, a cement factory in Do Luong, the white limestone exploiting and processing factory by Wolkem (India), a self-decomposed bags producing factory by Singapore in Nghi Loc, the toy making factory by Matrix (Hong Kong) in Vinh, and a cast iron mill by Jida (China) in Quynh Luu.

Currently, there are 5 industrial parks in Nghe An (with a total area of 1,278 hectares), including Bac Vinh IP and Nam Cam IP in Vinh, and Dong Hoi IP and Hoang Mai IP in Quynh Luu (north of Nghe An). All of them are in operation. Dong Nam Nghe An Economic Zone was established in July 2007 as a multi-product SEZ with a free trade area. This SEZ covers approximately 188.3 km², including 10 communes of the Nghi Loc District, 6 communes of the Dien Chau District and two wards of Cua Lo Township. The current Cua Lo Port and the one under construction at Cua Lo Deepwater Port are expected to be an advantage for this SEZ.

Nghe An's government would like to develop Route No. 7A for facilitating the transshipment of northeast Thai and Lao cargos to Cua Lo Port. By field trip survey, we found that the volume of cross-border trade in the Nam Kan / Nam Can border is small. The exports from Vietnam are mainly cheap consumer goods, simple agriculture tools, cement and fertilizer. Meanwhile, the exports from Lao PDR are actually Thai goods that transit through Lao PDR to Vietnam. Lao exports which transit in Vietnam and are conveyed through Cua Lo Port and along Route No. 7A and Route No. 46A are mainly wood chips.

In order to reduce poverty in hinterland mountainous districts in the west, Nghe An has set the target of developing a commodity economy in this region. To achieve this target, the development of a transport network to connect the western area to the eastern

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<sup>&</sup>lt;sup>12</sup> Anh Tuan (17/10/2011). "Completing the transport infrastructure development for creating the momentum for economic development (Hoan thien ha tang giao thong, tao da cho phat trien kinh te)", Nghe An Newpaper, Retrieved November 28, 2011.

area, especially to the southeast pivotal area, should be emphasized. Ho Chi Minh Highway, Route No. 7A, Route No. 46A and Route No. 48 are crucial connecting routes. The socio-economic development master plan<sup>13</sup> and the transportation plan<sup>14</sup> mention:

- (a) Widening Route No. 46A to at least 6 m (in mountainous areas) or 7 m (in plains areas)
- (b) Widening the section of Route No. 46A from Cua Lo Port to the intersection of Route No. 1A and Route No. 46A to become a dual three-lane (28 m wide) highway
- (c) Construction of a dual three-lane bypass for Route No. 46A to avoid Vinh City
- (d) Construction of a dual two-lane bypass for Route No. 46A to avoid Nam Dan Town
- (e) Construction of a dual three-lane bypass for Route No. 1A to avoid Vinh City
- (f) Construction of the 6 to 8-lane section in Nghe An of the Hanoi-Vinh Express Way.
- (g) Widening the Ho Chi Minh Highway to four or 6 lanes.
- (h) Widening Route No. 7A from the junction of Khai Son to Nam Can to at least 5.5 m.

#### Vietnam government's plans:

- (a) Improvement of Route No. 7A from Dien Chau to the Nam Can border to at least two lanes and 7.5 m in width in mountain landscape and 9 m in width in plains areas.
- (b) Improvement of Route No. 46A from the Thanh Thuy border to Cua Lo Port to at least two lanes and widths of 9 m in mountainous areas and 12 m in plains areas.

Additionally, the Thanh Hoa-Ha Tinh Expressway, as a part of the Eastern Wing of the North-South Expressway (*duong cao toc Bac Nam phia Dong*), is mentioned in the Detailed Master Plan of the Eastern Wing of North-South Expressway (140/QD-TTg issued on January 21, 2010). The Ministry of Transportation expects that the

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<sup>&</sup>lt;sup>13</sup> Decision 197/2007/Q?-TTg issued on 18 December 2007 by the prime minister.

<sup>&</sup>lt;sup>14</sup> Decision 60/2009/Q?-UBND issued on 30 June 2009 by Nghe An People's Committee.

construction of this expressway will begin in 2014 and will be completed in 2018.<sup>15</sup> The expressway will connect Route No. 7A, Route No. 46A and Route No. 8A. The master plan of socio-economic development in the Central Coastal region to 2020 mentions the solidification of sections in the above route which are easily flooded.

#### 3.2. Ha Tinh and Route No. 8A, Route No. 12A

Ha Tinh Province is situated next to Nghe An. During 1977 and 1991, two provinces were agglomerated to become Nghe Tinh Province. Nowadays, the southern part of Nghe An and the northern part of Ha Tinh are economically integrated to each other. Ha Tinh shares a 145-km-long border with Borikhamsay and Khammuane provinces of Lao PDR. It faces the ocean in the east with a 137-km coast.

Ha Tinh has a less developed economy. The industrial production value per capita in 2009 was 3.1 million VND, much lower than the country average of 25.9 million VND. Major industrial products include apparel, pharmaceutical drugs, wood chips, wood flooring and other wood products, green tea, mining products, and construction materials. The industrial potential of Ha Tinh is in the mining sector with titan, mangan, and iron. The Thach Khe iron ore mine in Thach Ha District may be the largest in Southeast Asia.

Ha Tinh has established two SEZs. Cau Treo International Border Economic Zone focuses on processing, assembly industries, trading and tourism. It is about 560 km<sup>2</sup> covering three communes and the Tay Son Town of Huong Son District. Vung Ang Economic Zone is 227.8 km<sup>2</sup> covering 9 communes in Ky Anh District. This SEZ was established with the ambition of utilizing Vung Ang Port and Son Duong Port. It focuses on heavy industry. By Vung Ang Bay, a project of four thermal power plants by Petro Vietnam, is under construction. In Son Duong, there are two giant FDI projects by Formosa Heavy Industries of Taiwan with a total registered capital of US\$ 7.89 billion. The first project is the construction of a deepwater port consisting of 8 berths dedicated to still projects. The second project is to establish a cast iron and steel producing cluster. Currently, the port is under construction. Other noticeable projects in Vung Ang include the wood chip mill by Nissho Iwai for export to Oji Paper Company, a wood processing

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<sup>&</sup>lt;sup>15</sup> *Phuong Anh* (23/09/2011). "Construction the Ninh Binh - Thanh Hoa - Ha Tinh Expressway (Chuan bi dau tu duong cao toc Ninh Binh - Thanh Hoa - Ha Tinh)." *Giao thong van tai Newspaper*, retrieved October 15 2011.

factory by Hong Lin of China, and a paper material factory by Hanviha of South Korea.

The four mountainous districts in west and south Ha Tinh, including Huong Son, Vu Quang, Huong Khe and Ky Anh, are the most underdeveloped ones. For poverty reduction in these districts, the development of transport corridors such as Route No. 8A (crossing Huong Son), Ho Chi Minh Highway (crossing Huong Son, Vu Quang and Huong Khe) and the new Route No. 12A (crossing Ky Anh), as well as connecting provincial and district highways, is considered by the Ha Tinh government to be a crucial measure. For that reason, the Ha Tinh transportation development plan mentions the widening of Route No. 8A to 11 m (two lanes), the widening of the road that connects Vung Ang Port to Route No. 1A to become a four-lane 21-m-wide road, and the widening of Route No. 12 from Ky Anh to Rao Tro River to 11 m.

Recently, the master plan of south Nghe An-north Ha Tinh region development has been approved. The plan mentions the development of Route No. 46A, Route No. 1A and Route No. 8A. Meanwhile, the master plan of south Ha Tinh-north Quang Binh region development mentions the development of Route No. 1A and Route No. 12A (both old and new routes). Plans by the central government mention:

- (a) Improvement of Route No. 8A to at least two lanes and widths of 9 m in mountainous areas and 12 m in plains areas.
- (b) Improvement of Route No. 12A in Ky Anh to two lanes and widths of 9 m in mountainous areas and 12 m in plains area. The part from Vung Ang Port to Route No. 1A will be widened to at least 30 m. The part of Route No. 1A between the junction to enter Vung Ang and the junction of Route No. 1A and Route No. 12A in Ky Anh will be widened to at least 50 m.
- (c) Construction of Hong Linh-Huong Son Expessway with a length of 34 km.

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<sup>&</sup>lt;sup>16</sup> Hai Dang (19/08/2011). "Master planning the south Nghe An - North Ha Tinh region development (Quy hoach xay dung Vung Nam Nghe An - Bac Ha Tinh den nam 2025)." *Xay Dung Newspaper*, retrieved 29 October 2011.

<sup>&</sup>lt;sup>17</sup> Decision 1685/QD-TTg issued on 14 September 2010 by the prime minister on approval of the master plan of south Ha Tinh-North Quang Binh region development.

#### 3.3. Quang Binh and Route No. 12A

Quang Binh is the 12th largest province in Vietnam in terms of dimension<sup>18</sup> and the 15th smallest by population. <sup>19</sup>

Quang Binh Province is located south of the Hoanh Son mountain range. The mountain and the Gianh River once were natural obstacles for transport between Ha Tinh and Quang Binh. The 732-m-long Gianh Bridge, which was completed in November 1999, and the 495-m-long Deo Ngang Tunnel, completed in August 2004, facilitate the movement of goods and persons. Quang Binh is bordered by Quang Tri Province in the south, Khammuane and Savannakhet provinces of Lao PDR in the west, and the ocean in the east.

The province consists of the capital city Dong Hoi and 6 districts. Two Northwest Hinterland districts along Route No. 12A are the most underdeveloped districts. Minh Hoa is among 62 poor districts in Vietnam.

In 2010, the industry-construction sector contributed 24.8 percent of provincial GDP. Major industrial products include cement, clinker and other construction materials, pulp paper and wood chips, and beer (Hanoi Beer). Quang Binh has four industrial parks in operation concentrated on Dong Hoi and Hon La Port in Quang Trach District. Hon La Economic Zone is an SEZ consisting of 6 communes of Quang Trach and covering 100 km². Cha Lo Border Economic Zone is another SEZ established in 2002 in Minh Hoa, a poor district in the north. Most of the projects in the IPs and SEZs of Quang Binh are by domestic firms.

Route No. 12A highway plays a very crucial role in the economic development of Minh Hoa and Tuyen Hoa. Quang Binh expects that this Asian Highway would bring about investment opportunities for the province. Since Route No. 12A was improved in the mid-2000s, some industrial projects have set up in Tuyen Hoa and Minh Hoa, including a cement plant by Song Gianh Cement near the junction of Khe Ve.

The provincial master plan of socio-economic development to  $2020^{20}$  mentions the cooperation between Quang Binh Province and the Ministry of Transportation for widening Route No. 12A, Ho Chi Minh Highway and Route No. 1A. The central

<sup>&</sup>lt;sup>18</sup> It covers an area of 8,065.3 square km.

<sup>&</sup>lt;sup>19</sup> The population in 2010 was estimated at 849,300.

<sup>&</sup>lt;sup>20</sup> Decision 952/QD-TTg issued on 23 June 2011 by the prime minister.

government plans to improve Route No. 12A from the junction of Ba Don to Cha Lo to at least two lanes and widths of 9 m in mountainous areas and 12 m in plain areas.

#### 3.4. Quang Nam - Kon Tum and Route No. 14

Quang Nam is a province member of the Central Pivotal Economic Region in Vietnam. It is located to the south of Danang. Quang Nam shares a border with Sekong Province of Lao PDR. There are two national border gates between the two provinces: Nam Giang (Nam Giang Districts, Quang Nam) / Daktaoknoy (Dak Cheung District, Sekong) and Tay Giang (Tay Giang District, Quang Nam) / Kaleum (Kaleum District, Sekong). Quang Nam consists of two cities (the provincial capital city of Tam Ky and the tourism city of Hoi An) and 16 districts. The western hinterland mountainous area covers 8 districts, including three poor districts (Nam Tra My, Tay Giang and Phuoc Son).

Most of Quang Nam's industrial establishments are concentrated in Tam Ky, Hoi An and Chu Lai Open Economic Zone. Major projects in the industry sector include those by Truong Hai Auto (automobile production), Viet Han Corporation (telecommunication cables), Inax (shower taps), Rieker Shoes (shoes), PepsiCo (beverages), Groz Beckert (textile tools and equipment), Cheng Sing Piston (pistons for combustion engines), and Uni-President (food).

Kon Tum is a hinterland province in North Central Highland (Bac Tay Nguyen). It is bordered by Quang Nam in the north, Quang Ngai in the east, Gia Lai in the south, and Attapeu (Lao PDR) and Rattanakiri (Cambodia) in the west. The province is the third smallest province in Vietnam in terms of population.<sup>21</sup> The population density<sup>22</sup> is the second lowest among provinces in Vietnam. The northern and eastern parts of Kon Tum are mountainous and higher-elevation areas.

The road system in Kon Tum consists of Ho Chi Minh Highway (Route No. 14) connecting Kon Tum City, and Dak Ha and Dak To towns to Pleiku, Route No. 40 which connects Ho Chi Minh Highway to the Bo Y border gate, and Route No. 24 (142 km) connecting Kon Tum to Route No. 1A and Quang Ngai Province.

Kon Tum is one of the least developed provinces in Vietnam. The largest sector is agriculture-forestry, contributing 34.31 percent of provincial GDP in 2009. Major

<sup>&</sup>lt;sup>21</sup> Only 431.8 thousand inhabitants (as of 2009).

<sup>&</sup>lt;sup>22</sup> 46 persons/square km.

agricultural products include rice, maize, sweet potatoes, cassava, sugar cane, peanuts, coffee, rubber, and cashew nuts.<sup>23</sup> The province was ranked as the 10th lowest province in Vietnam by industrial production value per capita in 2009. The manufacturing sector contributed only 14.48 percent of provincial GDP in 2009. Kon Tum's major industrial products are food and beverages, garments, wood and wood products, and construction materials. There are three industrial parks in operation, with two situated in Kon Tum City and the other one in Dak To District (north of Kon Tum City). Tu Mo Rong and Kon Plong in Kon Tum are among Vietnam's 62 poor districts.

Route No. 14B, Route No. 14D, Route No. 14E and Ho Chi Minh Highway are transport corridors which play important roles in commodity economic development and poverty reduction in Kon Tum, as well as in hinterland mountainous districts in Quang Nam. The Quang Nam provincial master plan of socio-economic development to 2015<sup>24</sup> that was approved in 2005 mentions the cooperation between the Quang Nam government and the central government to ensure the construction schedule and upgrading of Route No. 14B, Route No. 14D, Route No. 14E, Ho Chi Minh Highway and Route No. 1A. Meanwhile, Kon Tum's provincial master plan of socio-economic development to 2020 (Decision 581/QD-TTg issued on April 20, 2011 by the prime minister) mentions the cooperation between Kon Tum and the Ministry of Transportation to complete the construction and upgrading of Route No. 40, Ho Chi Minh Highway and Route No. 24.

In the master plan of road transport development in Vietnam to 2020 and orientation to 2030 (Decision 1327/QD-TTg issued on August 24, 2009 by the prime minister), and in the master plan of transport development in the Central Pivotal Economic Region to 2020 and orientation to 2030 (Decision 07/2011/QD-TTg issued on January 25, 2011), the Vietnam government states (a) the improvement of Route No. 14B to at least two lanes and widths of 9 m in mountainous areas and 12 m in plains areas; (b) improvement of Route No. 14D and the merging of it with Route No. 14B; and (c) improvement of Route No. 14E to at least two lanes and widths of 7.5 m in mountainous areas and 9 m in plains areas.

<sup>&</sup>lt;sup>23</sup> Web Portal of Kon Tum Province.

<sup>&</sup>lt;sup>24</sup> Decision 148/2005/QD-TTg issued on 17 June 2005 by the prime minister.

#### 4. PORTS AND SEZS

A criterion for corridors between Vietnam and Lao PDR is connecting northeast Thailand and Lao PDR to seaports. Some facts on seaports, however, should be considered.

Firstly, Vietnam's central region seaports are under capacity due to not enough<sup>25</sup> cargos. Container ships often have to wait at ports for containers and they charge high fees for waiting. Meanwhile, there are some arguments that ports in the central region are redundant, especially if considering the distance between them. Vung Ang Port is 140 km from Cua Lo Port, Hon La Port is only about 31 km from Vung Ang Port, Chan May Port is about 49 km from Tien Sa Port, and Dung Quat Port is about 120 km from Tien Sa Port.

Secondly, conventionally a deepwater port is a port that can accommodate a fully laden Panamax vessel, i.e more than 50,000 DWT or 4,000 TEU. Based on that, there is no real deepwater port in central Vietnam, even in the seaport development plan through 2020 by Vietnam's government. Containers, hence, are needed to transship from seaports in the central region to Hai Phong Port or Thi Vai-Cai Mep Port and then further to international transshipment hubs such as Hong Kong or Singapore. Firms may prefer to convey their containers by truck directly to Hai Phong Port or Thi Vai-Cai Mep Port to save time.

Thirdly, the distance from northeast Thailand to ports in central Vietnam is shorter than to Laem Chabang Port, though the transport time is longer due to poor road conditions in Lao PDR and Vietnam. Moreover, the cost may be higher due to transshipment charges at the borders by Lao PDR and Vietnam. Besides, sometimes import containers decrease, soship firms may seize on empty container conveying when leave Vietnam ports in order to require container imbalance charge.

Another criteria is connecting regional economic dynamos. Vietnam's government has approved several region development plans for economic dynamos such as the

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Nguyen Huu Sia (26/6/2010). "Danang Port as a Gateway for East-West Economic Corridor: Current Situation and Potentials (Cang Da Nang, cua ngo tuyen hanh lang kinh te Dong - Tay: hien trang va tiem nang)." Paper presented at Forum on Cooperation along East-West Economic Corridor held in Quang Tri on 26 June 2010.

south Thanh Hoa-north Nghe An region, south Nghe An-north Ha Tinh region (at the east terminus of Route No. 7A and Route No. 8A), and south Ha Tinh-north Quang Binh (at the east terminus of Route No. 12A). Meanwhile, Danang (at the east terminus of Route No. 14B) is considered the core of the Central Pivotal Economic Region of Vietnam. Besides, as mentioned above, several coastal and border SEZs are established. The problem is that there is a lack of institutional incentives for pushing the development of those regional dynamos. Border SEZs including Cau Treo, Cha Lo and Bo Y so far show poor performance in terms of number and capital volume of industrial investment projects. The Central Pivotal Economic Region, regional economic dynamos and SEZs in Vietnam's central region (except Dung Quat) do not create industrial linkages and spillover effects that stimulate the use of economic corridors.

#### **CONCLUDING REMARKS**

In this chapter, I have outlined the current state of transport corridors between Vietnam and Lao PDR, as well as plans by the central and local governments in Vietnam regarding the development of these corridors.

It is worth noting that the need for development of corridors is first of all derived from Vietnam's own strategy to reduce the economic gap and the infrastructure gap between the central region and other regions in the country. While the policy for seaport system development in Vietnam is much criticized, the policy for the road transport network is much approved. Road transport development is not only a target but also a policy measure in long term socio-economic development plans to accelerate economic growth and reduce poverty, enhance national security, and protect people from natural disasters (especially flash floods, which often occur in central Vietnam). Hence, development of Ho Chi Minh Highway as well as routes that connect it and Route No. 1A such as Route No. 7A, Route No. 46A, Route No. 8A, Route No. 12A (both old and new courses), Route No. 14B, Route No. 14D, and Route No. 14E are given much attention.

<sup>&</sup>lt;sup>26</sup> Bach Hoan (), "Gloomy atmosphere in border economic zones (Diu hiu khu kinh te cua khau )," *Tuoi Tre*, retrieved 29/11/2011.

<sup>&</sup>lt;sup>27</sup> T. Hang (17/11/2011), "Border economic zones: investment vs. return (Khu kinh te cua khau: Bai toan giua dau tu va hieu qua)," *Hai quan Onlin*e, retrieved 29/11/2011. from

Though sometimes the Vietnam government mentions the above corridors as "international exchange transport routes" (tuyen giao thong doi ngoai in Vietnamese), few effective measures have been decided upon to realize them.

Firstly, to realize the potential of the above-mentioned economic corridors between Vietnam and Lao PDR, instead of trying to attract manufacturing projects to border economic zones, Vietnam should turn them into free trade and logistics parks. Dry ports consisting of facilities necessary for cargo storage and handling as well as customs clearance services should be developed inside those parks. Other land ports at the intersections of the North-South Railway and corridors should also be developed. Recently, the Vietnam government has recognized the importance of land ports. The decision 3096/QD-BCT issued on June 24, 2011 by the Minister of Commerce and Industry does not, however, mention development of those facilities in central Vietnam.

Secondly, the Vietnam and Lao PDR governments should ensure the single window (one stop) service for customs and immigration procedures at joint borders. By our field trip survey, customs and immigration and plant quarantine officers at joint borders of Vietnam and Lao PDR have good communications and official as well as unofficial exchanges. This friendly relationship may be a good foundation for implementation of single window one-stop service.

Thirdly, along corridors, Vietnam should set up rest and service areas (RSA) to serve drivers as well as passengers, repair vehicles, and fill up with fuel. RSAs are not popular in Vietnam currently.

Fourthly, traffic signs for foreign drivers and passengers are also installed along corridors. Our field trip survey, however, revealed that such traffic signs in Vietnam are much fewer in comparison to Lao PDR and Thailand.

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